

REMARKS

At the outset, Applicants wish to thank the examiner for his courtesy in extending a telephonic interview on March 12, 2004. The above claim amendments and remarks presented below follow the discussion of the interview.

Claims 1-20 are pending in the application of which claims 1 and 6 are independent. Claims 1 and 6 are amended in this paper. Claims 5, 14 and 18 were canceled in a previous paper. New claims 22-25 are added.

Rejection of Claims Under 35 U.S.C. § 112, ¶1

Claims 1 and 6 are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Claims 1 and 6 are also rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In response, claims 1 and 6 have been amended and are now fully supported in the Specification.

Rejection of Claims under 35 U.S.C. § 103(a)

Claims 1-4, 6-13, 15-17 and 19-21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,830,420 to Borowiec et al. or WO 97/19199 (collectively "Borowiec"). We respectfully traverse this rejection in light of the above amendments and these remarks.

Borowiec fails to teach or even suggest a method of increasing the leachability of or beneficiating titania slag produced from beach sand ilmenite at the claimed oxidation conditions of about 700°C to below about 900°C for 30 minutes.

Specifically, although examples 5 and 6 of Borowiec disclose oxidation of slag produced from beach sand ilmenite, the oxidation conditions given are 1000°C for a period of 1 hour. Examples 12 and 13 of Borowiec recite oxidation conditions of 850°C for 2 hours and 900°C for 1 hour respectively. Neither example relates to titania slag produced from beach sand ilmenite, but rather, demonstrates the inapplicability of known process conditions for upgrading SORELSLAG[®], a slag derived from rock type ilmenite ore.

Accordingly, Borowiec teaches away from the instantly recited oxidation conditions. See, for example, In re Fritch, 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992); Bausch & Lomb, Inc. v. Barnes-Hind/Hyrdocurve, Inc., 796 F.2d 443, 230 USPQ 416 (Fed. Cir. 1986) (finding that a reference should be considered as a whole, and that portions arguing against or teach away should be considered.) See also In re Gurley, 27 F.3d 551, 31 USPQ2d 1130 (Fed. Cir. 1994) (“a reference may be said to teach away when a person of ordinary skill, upon reading the reference would be discouraged from following the path set out in the reference, or would be led in direction divergent from the path that was taken by the applicant.”). In the instant case, the applicants claim methods of treating titania slag produced from beach sand ilmenite, while examples 12 and 13 of Borowiec relate to upgrading a rock type ilmenite ore. Applicants claim methods for upgrading titania slag at temperatures and time durations lower than conditions taught by examples 5 and 6 of Borowiec as unsuitable for upgrading titania slag.

New claims 22-25 recite methods of treating titania slag at an oxidation temperature of from about 700°C to about 800°C. Applicants respectfully submit that Borowiec fails to disclose, teach or even suggest the oxidation conditions as recited in claims 22-25, and supported on pp. 10, 11 of the specification.

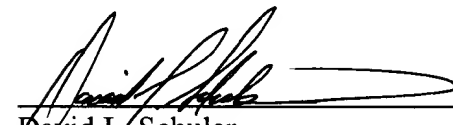
Applicants ask that all claims be allowed. Enclosed is a \$475.00 check for the Petition for Extension of Time fee. Please apply any other charges or credits to deposit account 06-1050.

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Respectfully submitted,

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